CLAIMS

1. A combination antenna integrated into the unscrewable head fuse (11) of an item of artillery ammunition for frequencies which are to be processed in the region of the fuse (11) of a radar proximity fuse and a navigational satellite receiver,

characterised in that

a ring disc-shaped slot antenna (17) which is disposed transversely with respect to the fuse axis opens radially on the one hand outwardly through the conical wall of the fuse and on the other hand inwardly into a resonator ring chamber (28) of an axial length which is substantially greater than the axial thickness of the slot (13), wherein, in addition to the geometrically governed resonance frequency for navigational tasks, there is provided a further resonance frequency for tasks of the radar proximity fuse, said further resonance frequency being determined by the dielectric of an electrically non-conducting hollow cylinder (29) introduced into the ring chamber (28) and not representing an integral multiple in relation to the navigational resonance frequency.

2. An antenna according to claim 1 characterised in that besides the actual resonator ring chamber (28) the antenna slot (13) which goes therearound extending radially therefrom is also dielectrically filled.

3. An antenna according to claim 1 or claim 2 characterised in that provided in one piece with the filling of the ring chamber (28) in the form of the hollow cylinder (29) is a collar (30) which extends flange-like therearound and which extends radially as far as the conical peripheral surface of the fuse (11) through the slot (13).

4. An antenna according to the preceding claim characterised in that the collar (30) axially fills the slot (13) and terminates flush with the outside surface of the peripherally slit fuse wall (12).

5. An antenna according to one of the preceding claims characterised in that a frequency-dividing means leads from the slot antenna (17) to the transmitting-receiving unit of a radar fuse.

6. An antenna according to one of the preceding claims characterised in that a two-wire antenna cable is connected to at least two locations, which are disposed axially one in front of the other, of the inside edges of the slot (13), wherein four such connecting locations are provided at the corners of a notional square concentric with respect to the fuse axis and are brought together by way of a matching network to the standardised impedance of a coaxial line to the antenna amplifier.

7. An antenna according to the preceding claim characterised in that it is provided with a dielectric disc (32) which serves as a wiring carrier for the network between the four mutually orthogonal connections to the inner end of the slot (13), which is towards the ring chamber (28).

8. An antenna according to one of the preceding claims characterised in that it is provided with a circuit carrier disc (32) which has a network for bringing together a plurality of connecting locations disposed along an inner edge of the slot (13') to a wire of an antenna line (20).

9. An antenna according to claim 8 characterised in that the inner edge of the slot (13') is given by a hoop (35) which is inserted at the end face into one of the hollow-cylindrical walls (27 or 31) of the ring chamber (28).